UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

Technology Enhancement for Photography

Title

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Name of Submitter

(Faculty or Staff Only)

Department of Visual Arts

Organization

Title: Technology Enhancement for Photography   Date: July 15, 2018

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Department/College/Org: Department of Visual Arts, College of the Arts

ABSTRACT (250 words or less):

The purpose of this grant is to purchase a wide-format inkjet printer, the Epson Sure Color P6000 Standard Edition. The main goal in adding this printer to the photography program's equipment is to provide a more economical method of inkjet printing to students enrolled in a photography course. A notable concern in operating the program's current printers is the radical increase in the cost of ink. As the photography program is one of the few curriculums in the Department that focuses on inkjet printing as a technical-skill, it is a critical knowledge base for students to develop not only within the field of photography, but other digital and digitally forward visual art concentrations. Alternative printing services outside of the program deeply impact course content and the teaching of image quality in relationship to output.

The purpose of this grant is to purchase an Epson Sure Color P6000 Standard Edition 24" printer. This enhancement would impact students in all levels of the Photography program including, VIAR 396 Introduction to Digital Photography, VIAR 397 Intermediate Photography, VIAR 398 Advanced Digital and Alternative Photography, and VIAR 490 Advanced Photography. The enrollment for these classes reaches around 40 students each semester. Students from all concentrations of the Department take these courses and come from Art Education, Ceramics, Computer Art & Animation, Graphic Design, Metalwork and Jewelry, New Media and Digital Art, Painting, Printmaking, and Sculpture. Students from other departments in the College of the Arts, including architecture and interior design, also enroll in the above courses, and VIAR 396 has become a frequently taken class for Moving Image Arts students in the College of Liberal Arts. Likewise, students from computer science, informatics, psychology, and communications have taken courses in the photography program.

The main goal in adding this printer to the program's equipment is to provide a more economical method of ink jet printing to students enrolled in a photography course. The program's current inventory includes one Epson Stylus Pro 9890 44" wide-format printer and five Epson Artisan 1430 small-format printers. Students operate the Artisan printers independently and use ink purchased with the program's budget collected through course fees. For images larger than the print capabilities of the Artisan 1430s 13" width, the program's instructor assists students in operating the Stylus Pro. This printer has been effective for courses that emphasize large format printing techniques, but the majority of the program's needs require greater use of the small-format printers in creating standard 8.5 x 10" and 13 x 19" photographic prints. These sizes are essential for the introductory course as it provides preliminary knowledge and skill-sets for inkjet printing of digital photographs that are further developed and carried throughout the intermediate and advanced courses. Lastly, these printers have been key in providing all photography students the ability to explore fine art papers and to make proof prints for class critiques, senior B.F.A. committee meetings, and portfolio reviews.

However, a major concern in operating these small printers is the radical increase in the cost of ink. Notable is the drastic change from the Fall 2016 to the Spring 2018, which averaged $16.79 for one ink cartridge and increased to $25.46, respectively. In most semesters, more than half of the course fees were spent on ink for the Artisan 1430 printers alone. Due to this, the photography course fees have been utilized mainly to keep these five printers operable, despite having to maintain several darkroom labs and supplies, cameras and lenses, studio lighting kits, and the Stylus Pro 9890 printer. Listed below is the cost of ink per semester, number of cartridges purchased, and average cost per cartridge for the past four semesters.

Spring 2018
98 Ink Cartridges   = $2,495.14
Average Cost per Ink = *$25.46*

Fall 2017
91 Ink Cartridges   = $2,181.93
Average Cost per Ink = *$23.97*

Spring 2017
131 Ink Cartridges   = $2,981.95
Average Cost per Ink = *$22.76*

Fall 2016
90 Ink Cartridges   = $1,511.41
Average Cost per Ink = *$16.79*

To offset these costs, the introductory and intermediate students have been asked to print their midterm and final portfolios at local, commercial printers like, Office Depot, Walgreens, or FedEx Kinkos. As prints from these places never appear as they do on screen, a new dialogue is introduced into the classroom, and course content as well as the teaching of image quality in relationship to output are deeply impacted. Since the students are no longer part of the printing process and cannot choose other factors that affect the output of the image including paper type, contrast, and color, they miss the opportunity to learn about how this affects the inkjet printing process. The photography program is one of the few programs in the Department that focuses on inkjet printing as a technical-skill in the classroom, which is critical to develop not only within photography, but other digital and digitally forward concentrations.

By comparing the cost of ink per milliliter for the Artisan 1430 printers with those of the wide-format printers, namely the Epson Stylus Pro 9890 and the Sure Color P6000, the wide-format printers demonstrate to be more economical. The cost of one milliliter of ink for the Artisan 1430 is over 30 cents more versus that of the higher volume cartridges. Listed below is the volume per ink cartridge, cost of the ink cartridge* and cost per milliliter of ink.

Artisan 1430 – Epson T79 Inks
Volume   = 35ml
Cost of one ink cartridge   = $25.46
Cost per ml of ink   = $.73

Stylus Pro 9890 – Epson T596 Inks
Volume   = 350ml
Cost of one ink cartridge   = $134.99
Cost per ml of ink   = $.38

Sure Color P6000 – Epson T824
Volume   = 350ml
Cost of one ink cartridge   = $139.99
Cost per ml of ink   = $.40

*As the cost of the Epson T79 ink cartridge varies from black to other colors, the cost has been based on the most recent average listed above. The Epson T596 and T824 ink cartridges do not vary in cost and have been obtained from the ink supplier, LexJet.com.

If awarded the grant, the Sure Color P6000 printer will serve as an alternative to the Artisan 1430s, which will be transitioned as proofing printers for intermediate and advanced students. Similar to the Artisan 1430s, the Sure Color has the capabilities to print a minimum size of 8.5 x 11 inches, single sheets of paper, and students will have the ability to print on various paper types, as well printing on larger rolls of paper. Additionally, the new printer will support students printing in larger formats, while the Epson Stylus Pro can be utilized primarily for prints larger than 24 inches in width.

The life expectancy of the Epson Sure Color P6000 printer largely depends on usage, however, for the program's capacity, a wide-format printer such as this one has a projected lifespan of 8-10 years. While the printer itself may still be functioning beyond its expectancy, ink cartridges and replacement parts will become increasingly difficult to find after the 10-year mark.

The person responsible for the equipment purchased with this grant is Stephanie Paine, Assistant Professor of Photography in the Department of Visual Arts. In addition to developing course content and teaching the photography courses in the Department, Paine is also the photography area coordinator and is responsible for the equipment, studio spaces, and supplies in the photography area. She would be responsible for implementation, installation, maintenance, and operation of the Epson Sure Color P6000. The printer will be installed in Fletcher Hall, Room 316A, and will be connected to that room's iMac computer with Adobe Photoshop. Maintenance and cleanings of the printer will be performed periodically during the semester and as needed prompted by the printer's performance checks. Paine has been teaching digital and film-based photography courses at UL-Lafayette since Fall 2016. She has been responsible for the maintenance and operation of similar equipment to the Sure Color P6000, like the Epson Stylus Pro 9890 and the Epson Artisan 1430 printers. She also operated multiple, wide-format inkjet printers as the digital print lab technician in the Photography and Related Media program in the Department of Art and Design at Purdue University.

Budget Proposal

1. **Equipment**　　**$2,995.00**
Epson Sure Color P6000 Standard Edition Printer
Model: SCP6000SE

Included with Printer
Printer Stand and Catch Basket
Spindle-free Roll Media Adaptors
Set of nine 110ml initial ink cartridges
Ink Maintenance Tanks
AC Power Cable
User Guide Kit (Documentation and Warranty)
Software provided via download
Sample roll of Epson Doubleweight Matte Paper

2. **Software**　　$

3. **Supplies**　　$

4. **Maintenance**　　$

5.	**Personnel**	$	
6.	**Other**	$	

TOTAL: **$2,995.00**